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restrained by scruple and more quickly realized. We do desire progress, but progress without increasing stability of what one has gained—whether of material or spiritual goods—becomes the revolution of the squirrel in his cage, or the treadmill of the horse. We wish the lesser men to become greater, and the superior men to become greater still. But all the emphasis of democracy today, and of Professor Dewey its protagonist,—no matter what he *would* say if pressed—is *actually* in favor of the lower, material needs, the judgment of the masses, the standards of the unskilled. It will if unchecked tend to bring humanity down to the level of its least developed members, and is thus directly against progress.

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THE DISTRIBUTION OF THE PREDICATE

IN a recent number of this JOURNAL[1] Professor Dotterer proposed a new definition of "distributed term." This he did with a view to meeting certain objections which I had suggested in my *Elementary Handbook of Logic* against the common doctrine that the predicate is distributed in negative propositions and undistributed in affirmative. I shall attempt to show in what follows that the new definition with its accompanying explanation leaves the objections unanswered.

My first objection was directed against the position of those who reject Hamilton's theory of the quantification of the predicate, but hold the doctrine of the distribution of the predicate. These logicians reject Hamilton's theory, because it supposes that in the act of judgment the extension of the predicate is present to the mind. This, they claim, is not true. But when they come to explain their own doctrine, they say that the mind refers to the extension of the predicate. My contention was that the mind can not refer to the extension of the predicate unless the extension of the predicate is present to the mind; hence, if Hamilton is wrong, these logicians are wrong.

My second objection was that the use of the doctrine of the distribution of the predicate involves a vicious circle. This doctrine is used by logicians to determine certain implications of a proposition. The beginner in Logic has no difficulty in seeing that the subject of a proposition may be distributed or undistributed, but it is not self-evident to him that this is true of the predicate. For this reason the logician sets about proving it. But in order to prove it, he appeals to the implication of the propositions, and then he

[1] Vol. XVII, pp. 519–522.

tells the student that, in drawing out the implication, he must remember that the predicate is distributed or undistributed; that is, he first calls upon the student's knowledge of the implication to prove the doctrine, and then he bids the student call upon his knowledge of the doctrine in order to find out the implication.

My third objection was based upon the partial inverse of *All S is P.* The partial inverse of this proposition is *Some non-S is not P.* According to the doctrine of the distribution of the predicate, *P* is distributed in the partial inverse, whereas it was undistributed in the original proposition. Consequently, if we accept the doctrine of the distribution of the predicate, we shall have to pronounce the partial inverse invalid; and if we pronounce it invalid, we shall have to hold that conversion and obversion are illegitimate processes.

In the fourth edition of his *Formal Logic* Dr. Keynes says that the distributed *P* in the partial inverse is explained by the fact that, in inverting *All S is P,* we assume the proposition *Some things are not P.*[2] I have discussed this suggestion of Dr. Keynes in my *Handbook.* Professor Dotterer's explanation is substantially the same as the one contained in the third edition of Dr. Keynes's work.

It will doubtless be admitted that the doctrine of the distribution of the predicate should not be retained in works on Logic merely on the ground that it is venerable. It was introduced into Logic, not for its own sake, but avowedly as an instrument. Its purpose was to facilitate the explanation of certain inferences, particularly those involved in conversion and the categorical syllogism. If it does not fulfill this purpose, it is useless and has no place in Logic. I think Professor Dotterer's explanation robs the doctrine of all its usefulness. His argument is as follows: "Given 'All *S* is *P*' as the original proposition, and 'Some non-*S* is not *P*' as its partial inverse, it is indeed true that *P* is distributed in the inverse and undistributed in the invertend. In the invertend, however, it is undistributed with respect to *S;* and in the inverse, it is distributed with respect to non-*S*. And this is no more of a contradiction than to say that John is tall as compared with William, but short as compared with Henry. The 'hypothesis of distribution' does not, then, 'break down' in the case of the partial inverse; for in this case the rule of distribution is simply irrelevant."

I would observe, first of all, that I did not say that the circumstance of a term being undistributed in the invertend and distributed in the partial inverse constituted a contradiction, but that it caused the doctrine of the distribution of the predicate to break down. By this I meant that it was inconsistent with the purpose of that doctrine and with the use to which it had been put by logicians. The chief use to which logicians had put the doctrine was to caution us against distributing a term in the conclusion if the term had been undistributed in the premise or premises from which the conclusion was derived. Otherwise, they said, the conclusion went beyond the information contained in the premises, and therefore, was invalid. Now, the partial inverse of the *A* proposition violates this rule, and yet it is valid. I infer from this that the doctrine of the distribution of the predicate breaks down.

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[2] *Formal Logic,* p. 140.

Professor Dotterer replies that *P* is undistributed with respect to *S* in the invertend, while in the partial inverse it is distributed with respect to non-*S*, and therefore my argument is of no avail. But what, precisely, is the force of this remark? Is it intended to have a general application? I take it that it is, particularly as it is enforced by the illustration: "John is tall as compared with William, but short as compared with Henry." I understand, then, that the doctrine of the distribution of the predicate is not affected, if a term which is undistributed with reference to a given term in a premise is distributed with reference to a *different* term in the conclusion. Take the following argument: *All M is P; No S is M;* therefore *No S is P.* Professor Dotterer's comment, applied to this case, would run as follows: "It is indeed true that *P* is distributed in the conclusion and undistributed in the major premise. In the major premise, however, it is undistributed with respect to *M;* and in the conclusion, it is distributed with respect to *S.*" Professor Dotterer says the rule of distribution is simply irrelevant in the case of the partial inverse. If that is true, then it is irrelevant in the case of the conclusion *No S is P;* for the reason he gave for its irrelevancy in the first case holds also in the second.

This is what I meant when I said that Professor Dotterer's contention destroyed the usefulness of the doctrine of the distribution of the predicate. Hitherto the doctrine has been used to test the validity of the conclusion in a categorical syllogism. But it can not be used for this purpose if it is irrelevant.

One of the general rules of the categorical syllogism reads: "No term may be distributed in the conclusion which was not distributed in one of the premises." Professor Dotterer suggests the following wording as more accurate: "Neither term of the conclusion may be distributed with respect to the other, unless in the premise in which it appears it is distributed with respect to the middle term." But how can this rule be proved? The doctrine of the distribution of the predicate can not be invoked to prove it; for in the case of a conclusion in the categorical syllogism the doctrine is irrelevant. In consequence, the rule will have to be proved independently of the doctrine; and this means that the doctrine is useless.

After formulating his definition of "distributed term," Professor Dotterer makes the following remark: "In speaking of the distribution of a term we are not merely concerned, to employ Professor Toohey's terminology, with the *import* of a proposition, but also with its *implication.*" These words lead me to believe that in my use of the terms "import" and "implication" I have not made my meaning clear to Professor Dotterer. I do not think that my use of these terms differs in any essential respect from that of, *e.g.*, Dr. Keynes. By the *import* of a proposition I mean that which is explicitly before the mind when the proposition is uttered. Thus, in the proposition, *Every S is P,* the intension of *P* and the extension as well as the intension of *S* are explicitly before the mind. But in common with most English logicians I claim that the extension of *P* is not explicitly before the mind. Hence I hold that the extension of *P* is not part of the import of the proposition. By the *implication* of a given proposition I mean any proposition which is involved in the import of the given proposition; that is, any proposition which can be derived from the given proposition. Let *Some P's are S* be an implication of *Every S is P.* The extension as well as the intension of *P* is explicitly before the mind in *Some P's are S.* Therefore, the extension of *P* is part of the implication, but not of the import, of *Every S is P.*

If we say that the extension of *P* is part of the import of *Every S is P,* we are espousing Hamilton's theory. But unless we adopt that theory, we can not speak of the predicate of a proposition as being distributed or undistributed; for the words "distributed" and "undistributed" have no meaning except in reference to the extension of a term.

When Professor Dotterer says, "in speaking of the distribution of a term we are not merely concerned . . . with the *import* of a proposition, but also with its *implication,*" does he mean that the implication as well as the import is a necessary factor in determining whether a term is distributed or undistributed? If he does not mean this, I do not understand the relevancy of his remark. If he does mean it, then my second objection holds against his position. If we must consult the implication of a proposition to learn whether one of its terms is distributed or undistributed, we can not use our knowledge of the distribution of the term to derive the implication without involving ourselves in a vicious circle. Besides, which of the implications shall we fix upon to determine whether *P* is distributed or undistributed in the original proposition? *Some non-S is* *not P* is an implication of *All S is P;* and yet *P* is said to be undistributed in *All S is P.*

Professor Dotterer's definition of "distributed term" is as follows: "A term is distributed with respect to another term when by reflection upon the mere form of the proposition containing the terms in question we can tell that the class denoted by the one is either 'wholly within' or else 'wholly without' the class, or some part of the class, denoted by the other." I do not know whether Professor Dotterer is an advocate of Hamilton's theory or not; but this definition is intelligible only from the point of view of Hamilton's theory, at least as regards the propositions *A, E, I* and *O.* The words, "reflection upon the mere form of the proposition," exclude all appeal to the implication. But since we can not contemplate the class denoted by a term without having the extension of the term present to the mind, and since we can not "tell that the class denoted by the one [term] is either 'wholly within' or 'wholly without' the class, or some part of the class, denoted by the other," unless we compare the classes together, it follows that the extension of both terms is present to the mind, and therefore forms part of the import of the proposition. This is Hamilton's doctrine.

There is an inconsistency in the logician treating the subject and predicate of a proposition as classes—an inconsistency which is masked by the ambiguity of the words *All* and *Some.* Each of these words may have a collective as well as a distributive force. When *All* has a distributive force, it is exactly equivalent to *Every. Some* has a collective force in the proposition, *Some strikers destroyed the factory.* When *Some* has a distributive force, it is equivalent to "every one of a certain number of" or "no one of a certain number of," according as the proposition is affirmative or negative. Thus, *Some men are wise* is the same as *Every one of a certain number of men is wise.* The rules of Logic are based on the supposition that the subject term is used distributively, or at least that it is not used collectively. The words "distributed" and "undistributed" can not be applied to a term unless it is used distributively. In the proposition, *All the angles of a triangle are less than two right angles,* the subject term, "angle of a triangle," is distributed; for it is used distributively, and the proposition is the same as *Every angle of a triangle is less than two right angles.* But in the proposition, *All the angles of a triangle are equal to two right angles,* no logician would speak of the subject term, "angle of a triangle," as either distributed or undistributed. Now, when the subject and predicate of a proposition are considered as classes, the proposition can not convey any meaning unless both terms are interpreted in a collective sense; and if they are interpreted in this sense, the words "distributed" and "undistributed" can not be applied to them, any more than they can be applied to the subject of the proposition, *All the angles of a triangle are equal to two right angles.* The words "collected" and "uncollected" would not be altogether inappropriate. If, then, the rules of Logic suppose that the subject is not used collectively, how can they be reconciled with a treatment of the proposition which imposes upon both subject and predicate a collective sense?

Moreover, it is impossible, at least in affirmative propositions, for the predicate to be used distributively, and therefore, it is impossible for it to be either distributed or undistributed. The words *Every* and *Every one of a certain number of* are the *test* whether the subject term is used distributively or not. If neither of them can be prefixed to the subject of an affirmative proposition, the subject is not used distributively. But it is obvious that neither of these signs can be prefixed to the predicate. Take any of the examples adduced by logicians to prove that reference is made to the extension of the predicate, and it will be seen that this test would reduce them to nonsense. Thus, the proposition, *All Tartars are Turanians,* would become *Every Tartar is every one of a certain number of Turanians.* But the converse, *Some Turanians are Tartars,* may without violence be made to read *Every one of a certain number of Turanians is a Tartar.*

One more remark in conclusion concerning the partial inverse of *All S is P.* The difficulty connected with the partial inverse is due to an initial mistake in the interpretation of the particular negative proposition. On the common interpretation, *Some non-S is not P* gives us more information about *P* than does *All S is P.* But in reality it does not. It is true that, when a term is distributed in a proposition, we have information about more individuals in the extension of the term than we have when the term is undistributed? There can be no doubt that we have, when the *subject* is distributed. *Every man is mortal* gives us information about more men than does *Some men are mortal.* In Logic, the application of the doctrine of the distribution of the predicate is based on the supposition that the same is true of the predicate. And the fact that the proposition, *No S is P,* gives us the universal converse, *No P is S,* imparts a degree of plausibility to this view. But the *O* proposition stands on entirely different ground. Take the two propositions, *Some mammals are bipeds, Some mammals are not bipeds.* There is more information concerning *mammals* conveyed by these propositions taken together than there is by the first proposition alone. But the first proposition conveys as much information about *bipeds* as the two combined. The second proposition gives no information whatever concerning bipeds. And yet the doctrine of the distribution of the predicate supposes that the second proposition contains more information than the first concerning bipeds. Because we know that *Some mammals are bipeds,* we can say something about certain individual bipeds. But from the mere knowledge that *Some mammals are not bipeds* can we say something about every individual biped? Can we say something about each biped which we could not say without knowing that *Some mammals are not bipeds?* If we can not say something about every individual biped, how can we have information about more bipeds in the second proposition than we have in the first? If *Some bipeds are not mammals* were set down as the converse of *Some mammals are not bipeds,* the converse would be invalid, not because it contained more information than the convertend concerning mammals, but because it contained more information concerning bipeds.

The truth of *Some S is not P* is consistent with the truth of either of the following propositions: *All P is S* and *Some P is not S.* This is evident from the following pairs of propositions: *Some animals are not horses—All horses are animals; Some Americans are not physicians—Some physicians are not Americans.* If we write *Some P is not S* as the converse of *Some S is not P,* we exclude *All P is S.* This we are not justified in doing; for it may be that *All P is S* is true. It is not because *S* is "distributed" in *Some P is not S* that this proposition is invalid, but because it purports to convey information concerning *P* which the original proposition does not warrant. *All S is P* conveys information about every *S*; but *Some S is not P* does not convey any information whatever, whether directly or by implication, about *P.* And yet the assumption underlying the doctrine of the distribution of the predicate is that the second proposition gives us as much information about *P* as the first one does about *S.* This assumption is unwarranted; and it is this assumption which is at the root of the difficulty that has arisen in connection with the partial inverse of *All S is P.*

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A SOURCE OF THE PLOTINIAN MYSTICISM

OUR purpose in this paper is to point out the systematic, or, as one might say figuratively, the deductive reasons which led to Plotinus's mysticism. Dean Inge in his Gifford Lectures has already indicated the empirical reasons. He seems to feel that the experiencing of a mystic vision is enough warrant for a mystical interpretation of the universe. Since Porphyry's life of Plotinus